

IN THE CLAIMS

1-38. (canceled).

39. (previously presented) A display device comprising:

a semi-transparent reflective layer;

a first electrode of a light reflecting material;

a second electrode of a transparent material; and

an organic layer including a light emitting layer interposed between the first electrode and the second electrode,

wherein,

a cavity portion comprises one of a gap between an interface between the first electrode and said organic layer and an interface between the organic layer and said semi-transparent reflective layer, a gap between an interface between the semi-transparent reflective layer and the second electrode and an upper edge interface of the second electrode, and a gap between an interface between the first electrode and said organic layer and said upper edge interface of the second electrode,

wherein an optical path length L' of said cavity portion satisfies the equation:

$$(2L')/\lambda + \Phi/(2\pi) = m + 1/4 \text{ (m is an integer)}$$

where Φ radians is the sum of phase change amounts to reflection of the light emitted from the light emitting layer at both interfaces bounding the gap and λ is the peak wavelength of the spectrum of green light extracted through said second electrode, and wherein an optical path length L of the cavity portion has a positive minimum value in a range that satisfies the equation below and m is the integer m that satisfies the equation below:

$$(2L)/\lambda + \Phi/(2\pi) = m \text{ (m is an integer)}.$$

40. (canceled).

41. (previously presented) A display device comprising:

a semi-transparent reflective layer;

a first electrode of a light reflecting material;
a second electrode of a transparent material; and
an organic layer including a light emitting layer interposed between the first electrode and the second electrode,

wherein,

a cavity portion comprises one of a gap between an interface between the first electrode and said organic layer and an interface between the organic layer and said semi-transparent reflective layer, a gap between an interface between the semi-transparent reflective layer and the second electrode and an upper edge interface of the second electrode, and a gap between an interface between the first electrode and said organic layer and said upper edge interface of the second electrode,

a color filter is provided for transmitting light resonating in said cavity portion and extracted through said second electrode, and

a reflectance of each wavelength of external light is limited to 30% or less.

42. (previously presented) A display device of claim 41,

wherein,

an optical path length L of said cavity portion has a positive minimum value in a range that satisfies the equation:

$$(2L)/\lambda + \Phi/(2\pi) = m \text{ (m is an integer)}$$

where Φ radians is the sum of phase change amounts to reflection of the light emitted from the light emitting layer at both interfaces bounding the gap and λ is the peak wavelength of the spectrum extracted through said second electrode.

43. (previously presented) A display device of claim 41,

wherein,

an optical path length L' of said cavity portion satisfies the equation:

$$(2L')/\lambda + \Phi/(2\pi) = m1 + 4 \text{ (m is an integer)}$$

where Φ radians is the sum of phase change amounts to reflection of the light emitted from the light emitting layer at both interfaces bounding the gap and λ is the peak wavelength of the spectrum of green light extracted through said second electrode, and m is the integer m that satisfies the equation:

$$(2L)/\lambda + \Phi/(2\pi) = m \text{ (m is an integer).}$$

44. (previously presented) A display device of claim 41,
wherein,

an optical path length L' of said cavity portion satisfies the equation:

$$(2L')/\lambda + \Phi/(2\pi) = m_1 + q \text{ (m is an integer)}$$

where Φ radians is the sum of phase change amounts to reflection of the light emitted from the light emitting layer at both interfaces bounding the gap and λ is the peak wavelength of the spectrum of green light extracted through said second electrode, and m is the integer m that satisfies the equation and q is the integer not smaller than 10:

$$(2L)/\lambda + \Phi/(2\pi) = m \text{ (m is an integer).}$$

45-50. (canceled).

51. (previously presented) A display device comprising:

a semi-transparent reflective layer;

a first electrode of a light reflecting material;

a second electrode of a transparent material;

a passivation film on said second electrode; and

an organic layer including a light emitting layer interposed between the first electrode and the second electrode,

wherein,

a cavity portion comprises a gap between an interface between the semi-transparent reflective layer and the second electrode and an upper edge interface of said passivation film,

wherein an optical path length L' of said cavity portion satisfies the equation:

$$(2L')/\lambda + \Phi/(2\pi) = m1 + 4 \text{ (m is an integer)}$$

where Φ radians is the sum of phase change amounts to reflection of the light emitted from the light emitting layer at both interfaces bounding the gap and λ is the peak wavelength of the spectrum of green light extracted through said second electrode, and wherein an optical path length L of the cavity portion has a positive minimum value in a range that satisfies the equation below and $m1$ is the integer m that satisfies the equation below:

$$(2L)/\lambda + \Phi/(2\pi) = m \text{ (m is an integer).}$$

52. (previously presented) A display device comprising:

a semi-transparent reflective layer;

a first electrode of a light reflecting material;

a second electrode of a transparent material;

a passivation film on said second electrode; and

an organic layer including a light emitting layer interposed between the first electrode and the second electrode,

wherein,

a cavity portion comprises a gap between an interface between the semi-transparent reflective layer and the second electrode and an upper edge interface of said passivation film,

wherein an optical path length L' of said cavity portion satisfies the equation:

$$(2L')/\lambda + \Phi/(2\pi) = m1 + q \text{ (m is an integer)}$$

where Φ radians is the sum of phase change amounts to reflection of the light emitted from the light emitting layer at both interfaces bounding the gap and λ is the peak wavelength of the spectrum of green light extracted through said second electrode, and wherein an optical path length L of said cavity portion has a positive minimum value in a range that satisfies the equation below and $m1$ is the integer m that satisfies the equation below and q is the integer not smaller than 10:

$$(2L)/\lambda + \Phi/(2\pi) = m \text{ (m is an integer).}$$

53. (canceled).